

## FOCUS ON HOSPITALITY ISSUES

### WHEN HOTEL REVENUES DIVE, WHAT HAPPENS TO NOIs & PROPERTY PRICES?

by John "Jack" B. Corgel



Each week, the hotel industry anxiously awaits the release of the Smith Travel Research room revenue numbers for thousands of U.S. properties. Interest in these reports reached new highs during recent months as the private and public markets continually monitor industry performance during the recession and following the events of September 11. Through the fourth quarter of 2001, room revenues remain well below levels achieved during the same weeks in 2000.<sup>1</sup>

The availability of timely revenue information represents a large first step toward understanding how hotel property returns have held up under current economic pressures. Nevertheless, these data may be somewhat misleading about the severity of hotel market softness from a capital market perspective. While the share prices of franchise and management giants in the hotel industry (e.g., Marriott International) vary directly with movements on the top of hotel property income schedules, equity and debt capital suppliers have more of a stake in the bottom-line incomes and property valuations. Unfortunately, timely information about hotel NOIs and property values is far less available to the capital markets than are the revenue numbers to franchise and management interests.

At a minimum, the shortage of information about hotel NOIs and values makes hotel capital more expensive than it would be if the risks could be analyzed more completely.<sup>2</sup> In the extreme case, these information problems could lead to an inefficient allocation of capital to hotel property investment.

#### TRANSLATING REVENUE TO NET INCOME

Hotels have known systematic risks. The income elasticity of demand for hotel rooms exceeds 1.0, meaning that hotel rooms trade as luxury goods. With firm and household budgets strained, expenditures on travel will be deferred, reduced, or eliminated. Hotels also have extremely high expense ratios. While the expense ratio of an investment grade office property is less than 50 percent, full-service hotels have 70 percent expense ratios.<sup>3</sup> The large and highly complicated expense schedules of hotels, especially full-service hotels, elevate the degree of difficulty in converting changes in revenues to changes in NOI.

Translating hotel revenues to net income is meaningful to capital market participants for the following reasons:

1. The key loan delinquency indicator, the debt coverage ratio, requires estimates of NOI in the numerator, not revenues.
2. Capitalization and discounted cash flow models require NOI forecasts as inputs for estimating property values.

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A recession produces many opportunities for expense reduction that serve to lessen the impact of revenue declines on hotel NOIs. As heavy consumers of capital and energy, hotel properties have benefited from debt refinancing and the remarkable turnaround in energy pricing during the past 18 months. Energy cost savings effect NOI directly, while lower debt costs create more favorable debt coverage ratios and capitalization rates.

Because many hotel expenses vary with occupancy, falling occupancy reduces expenses along with lower revenues. During this recession, some hotel owners and managers have chosen to exercise their put option to close down floors, sections, and even entire properties in an all-out assault on variable expenses. Hotel NOI generally have been bolstered by lower labor costs which constitute about 40 percent of the expenses in a typical full-service hotel. The late 1990s was an era of strong revenue growth accompanied by employment growth in many hotels. Some of these employees are no longer necessary and thus have received involuntary separation notices. The wage pressures felt by hotel management in recent years have totally disappeared. Also, hotel owners are beginning to challenge property tax assessments in the shadow of the recent declines in revenues. Fixed expenses may actually increase, however, since savings in property taxes will be more than negated by increasing insurance premiums.

### GO WITH THE FLOW

An important performance statistic for analyzing NOI impact from falling revenues is the 'flow-through' ratio. As defined below, flow through represent the NOI elasticity with respect to revenues.

Flow-Through Ratio = % Change in NOI / % Change in Revenue

Flow-through ratios depend on the relationship between revenue growth and expense growth. Revenue shifts create larger shifts in NOI as revenue growth rates diverge from expense growth rates. The extent of the NOI shifts is determined by the profit margin of the hotel. Full-service hotels with lower profit margins have higher flow-through ratios than limited-service hotels with higher profit margins.

Using financial statement data managed by my firm for thousands of hotels during the period 1959

to present, I calculated the median flow-through ratio for limited- and full-service hotels. The results are as follows:

Limited service = .63

Full-service = 1.47

The conventional wisdom based on barriers-to-entry arguments suggests that limited-service hotels are far riskier than full-service hotels. Historical flow-through ratios indicate that the same percentage change in revenues will produce much larger percentage change in full-service hotel NOIs than limited-service hotel NOIs.

### REVENUE CHANGES AND PROPERTY PRICES

All real estate suffers from the same problem with respect to understanding the dimensions of capital loss due to sudden negative shifts in revenues. The problem stems from the non-continuous nature of asset trading. Hotel investors have struggled during recent months to understand how property prices are reacting to the one-two punch of recession and air-travel stigma. The search for answers leads in the following three directions:

1. Public market trading of pure plays on hotel real estate (*i.e.*, hotel REITs)
2. Capitalization rate evidence and forecasts
3. Transaction price evidence

Hotel REIT prices fell by approximately 20 percent to 25 percent during August and September, as did prices of management and franchise companies. Since that time, prices of management and franchise company stock have recovered somewhat, as have hotel REIT prices. There is some evidence to suggest that securitized real estate price changes lead property price changes by as much as one year. Parameters of a capitalization rate forecast model produced with Torto Wheaton Research indicate that hotel revenue changes are mostly reflected in capitalization rates in six months. Thus, hotel property price effects should begin showing up in transactions during the first two quarters of 2002. Recent hotel transactions have not reflected strong downward movements, although some of these transactions were negotiated prior to September 11.

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## FINAL COMMENTS

The trend for hotel revenues continues to be negative across most areas of the U.S. and all property types. Revenue declines will translate into lower NOIs and property prices, but by varying magnitudes and with some delay. Full-service hotels in major markets are experiencing the most financial pain during this recession. Revenues have fallen sharply due in part to air travel dependency. Unfortunately, the NOIs of full-service hotels are quite sensitive to revenue changes. Real estate price discounts should begin to appear by mid-2002, especially if the economy does not show signs of recovery during the first and second quarters of 2002.<sup>REI</sup>

## NOTES

1. The RevPAR declines for all properties during December 2001 equaled about 12%.
2. For core property types (*i.e.*, office, industrial, retail, and apartment), property level risk analysis is aided by historical valuation measures available from sources such as NCREIF and the Real Estate Index.
3. The average profit margin in 2000 of full-service hotels reporting to PKF Consulting and the Hospitality Research Group equaled 30.3%. See *Trends in the Hotel Industry USA Edition - 2001*.

## ABOUT OUR FEATURED COLUMNIST

*John "Jack" B. Corgel, Ph.D., joined the Hospitality Research Group (HRG) of PKF Consulting in 1999 as managing director of applied research. There, he is developing new products for the hotel industry based on property-level financial performance information. Prior to joining HRG, he was a member of the Cornell Hotel School faculty for 10 years and served as the first director of the Center for Hospitality Research from 1992-1994. He is widely published in academic and professional journals and is a fellow of the Homer Hoyt Institute. (E-mail: jc1616@pkfc.com)*